AMENDMENTS TO THE CLAIMS

Please amend claims 10 and 30 as set forth in the listing of claims that follows:

Claim 1 (previously presented): An electrical circuit assembly comprising two components bonded together with an electrically-conductive joint structure therebetween, the joint structure comprising a flexible mesh infiltrated by a solder material that bonds the mesh to the components and the components to each other, a solder-free portion of the mesh extending outside of the joint structure and from between the components to define a flexible jumper to a first of the components.

Claim 2 (original): The electrical circuit assembly according to claim 1, wherein the mesh is formed of woven strands of copper or copper alloy wire.

Claim 3 (previously presented): The electrical circuit assembly according to claim 1, wherein the first of the components is a circuit element and a second of the components is a conductor on a substrate.

Claim 4 (original): The electrical circuit assembly according to claim 3, wherein the conductor is a heatsink of the substrate.

Claim 5 (original): The electrical circuit assembly according to claim 3, wherein the circuit element is an integrated circuit chip on a surface region of the substrate, and the joint structure contacts a surface of the integrated circuit chip.

Claim 6 (canceled)

Claim 7 (previously presented): The electrical circuit assembly according to claim 5, further comprising an interconnect strap contacting the integrated circuit chip and a second surface region of the substrate, the interconnect strap comprising a flexible mesh of which at least two separate portions are infiltrated by a solder material that bonds the mesh to the integrated circuit chip and to the second surface region of the substrate, a third portion of the mesh between the two separate portions being free of the solder material so as to remain flexible.

Claim 8 (original): The electrical circuit assembly according to claim 7, wherein the solder material of the interconnect strap has a lower melting temperature than the solder material of the joint structure.

Claim 9 (original): The electrical circuit assembly according to claim 7, wherein the interconnect strap is bonded to a third component on the second surface region of the substrate.

Claim 10 (currently amended): An electrical circuit assembly comprising two components bonded together with a joint structure, the joint structure comprising a flexible mesh infiltrated by a solder material, wherein a first of the components comprises multiple electrical devices with a first set of terminals, each electrical device comprising a said terminal bonded with the solder material to the joint structure so as to hold the electrical devices together, a second of the components is a conductor on a substrate, and the joint structure bonds the first set of terminals to the conductor.

Claim 11 (previously presented): The electrical circuit assembly according to claim 10, further comprising a second joint structure comprising a flexible mesh infiltrated by a solder material, the mesh of the second joint structure being formed of a material having a higher thermal conductivity than the solder material of the second joint structure, the electrical devices having a second set of terminals bonded together with the second joint structure.

Claim 12 (original): The electrical circuit assembly according to claim 11, wherein portions of the meshes of each of the joint structure and the second joint structure extend outside of the joint structure and the second joint structure to define two caps that overlie each of the terminals.

Claim 13 (original): The electrical circuit assembly according to claim 12, wherein each of the caps comprises a second solder material that infiltrates the portion of the mesh and has a higher melting temperature than the solder materials of the joint structure and the second joint structure.

Claim 14 (previously presented): A semiconductor assembly comprising a heat-generating semiconductor device that is attached to a conductor on a substrate with an electrically-conductive joint structure located between the semiconductor device and the conductor, the joint structure comprising an electrically-conductive flexible mesh infiltrated by a solder material that bonds together the semiconductor device, the conductor and the mesh, a solder-free portion of the mesh extending outside of the joint structure and from between the semiconductor device and the conductor to define a flexible jumper to the semiconductor device, the mesh being formed of a material having a higher thermal conductivity than the solder material, the mesh substantially establishing the thickness of the joint structure.

Claim 15 (original): The semiconductor assembly according to claim 14, wherein the mesh is formed of woven strands of copper or copper alloy wire.

Claim 16 (original): The semiconductor assembly according to claim 14, wherein the conductor is a heatsink of the substrate.

Claim 17 (original): The semiconductor assembly according to claim 14, wherein the semiconductor device is an integrated circuit chip, and the joint structure is between and contacts a surface of the integrated circuit chip and a surface of the conductor.

Claim 18 (canceled)

Claim 19 (previously presented): The semiconductor assembly according to claim 17, further comprising an interconnect strap contacting a second surface of the integrated circuit chip and a third component on the substrate, the interconnect strap comprising an electrically-conductive flexible mesh having first and second portions at the second surface of the integrated circuit chip and the third component, respectively, and an intermediate portion therebetween, the first and second portions of the mesh being infiltrated by a solder material that bonds the mesh to the second surface of the integrated circuit chip and to the third component while the intermediate portion is substantially free of a solder material so as to remain flexible.

Claim 20 (original): The semiconductor assembly according to claim 19, wherein the solder material of the interconnect strap has a lower melting temperature than the solder material of the joint structure.

Claim 21 (previously presented): A method of bonding together two components with an electrically-conductive joint structure, the method comprising the steps of placing a first portion of a flexible mesh between the components and bonding the first portion of the mesh to the components with a solder material that infiltrates the first portion of the mesh but does not infiltrate a second portion of the mesh, the first portion of the mesh and the solder material forming the joint structure between the components, the second portion of the mesh extending outside of the joint structure and from between the components to define a solder-free flexible jumper to a first of the components.

Claim 22 (original): The method according to claim 21, wherein the mesh is formed of woven strands of copper or copper alloy wire.

Claim 23 (previously presented): The method according to claim 21, wherein the first of the components is a circuit element and a second of the components is a conductor on a substrate, and the forming step comprises bonding the circuit element to the conductor.

Claim 24 (original): The method according to claim 23, wherein the conductor is formed as a heatsink of the substrate.

Claim 25 (original): The method according to claim 23, wherein the circuit element is an integrated circuit chip on a surface region of the substrate, and the joint structure contacts a surface of the integrated circuit chip.

Claim 26 (canceled)

Claim 27 (previously presented): The method according to claim 25, further comprising the steps of contacting a second surface of the integrated circuit chip and a second surface region of the substrate with two separate portions of an interconnect strap comprising a flexible mesh, and infiltrating the separate portions with a solder material to bond the mesh to the integrated circuit chip and to the second surface region of the substrate, a third portion of the mesh between the two separate portions remaining free of the solder material so as to remain flexible.

Claim 28 (original): The method according to claim 27, wherein the solder material of the interconnect strap has a lower melting temperature than the solder material of the joint structure.

Claim 29 (original): The method according to claim 27, further comprising the step of bonding the interconnect strap to a third component on the second surface region of the substrate.

Claim 30 (currently amended): A method of bonding together two components with a joint structure, the method comprising the step of forming the joint structure of a flexible mesh infiltrated by a solder material, wherein a first of the components is a circuit element comprising multiple electrical devices, each electrical device comprising a terminal that cooperates to form ~~with~~ a first set of terminals, a second of the components is a conductor on a substrate, and the joint structure is formed by infiltrating the mesh with the solder material so that the solder material bonds the first set of terminals to the mesh so as to hold the electrical devices together and so that the solder material bonds the mesh to the conductor so as to attach the first component to the conductor.

Claim 31 (previously presented): The method according to claim 30, further comprising the step of forming a second joint structure to bond together a second set of terminals of the electrical devices, the second joint structure comprising a flexible mesh infiltrated by a solder material, the mesh of the second joint structure being formed of a material having a higher thermal conductivity than the solder material of the second joint structure.

Claim 32 (original): The method according to claim 31, wherein the joint structure and the second joint structure are formed so that portions of their respective meshes extend outside of the joint structure and the second joint structure to define two caps that overlie each of the terminals.

Claim 33 (original): The method according to claim 32, wherein each of the caps comprises a second solder material that infiltrates the portion of the mesh and has a higher melting temperature than the solder materials of the joint structure and the second joint structure.

Claim 34 (previously presented): A method of attaching a heat-generating semiconductor device to a conductor on a substrate with an electrically-conductive joint structure, the method comprising the steps of:

providing on the conductor a preliminary structure comprising a flexible mesh and a solder material, the mesh being formed of a material having a higher thermal conductivity than the solder material;

placing the semiconductor device on the preliminary structure so that the solder material and a first portion of the mesh is between the semiconductor device and the conductor and a second portion of the mesh is not between the semiconductor device and the conductor; and then

forming the joint structure by heating the preliminary structure so that the solder material melts, infiltrates the first portion of the mesh, and bonds together the semiconductor device, the conductor and the first portion of the mesh, the second portion of the mesh extending outside of the joint structure and from between the semiconductor device and the conductor to define a solder-free flexible jumper to the semiconductor device, the mesh substantially establishing the thickness of the joint structure.

Claim 35 (original): The method according to claim 34, wherein the mesh is formed of woven strands of copper or copper alloy wire.

Claim 36 (original): The method according to claim 34, wherein the conductor is formed as a heatsink of the substrate.

Claim 37 (original): The method according to claim 34, wherein the semiconductor device is an integrated circuit chip, and the joint structure is formed between and contacts a surface of the integrated circuit chip and a surface of the conductor.

Claim 38 (canceled)

Claim 39 (previously presented): The method according to claim 37, further comprising the steps of contacting a second surface of the integrated circuit chip and a third component on the substrate with first and second portions, respectively, of an interconnect strap comprising a flexible mesh, and infiltrating, the first and second portions of the mesh with a solder material to bond the mesh to the integrated circuit chip and to the third component, an intermediate portion of the mesh between the first and second portions remaining free of the solder material so as to remain flexible.

Claim 40 (original): The method according to claim 39, wherein the solder material of the interconnect strap has a lower melting temperature than the solder material of the joint structure.